

SL-HF400

RMT-124

SONY® SERVICE MANUAL

US Model
Canadian Model
March, 1986

CORRECTION-1

The following corrections should be made in the Service Manual.

corrected portion



9-972-390-91

Consumer
VIDEO

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5-5-14. BETA Hi-Fi Deviation Check

BETA Hi-Fi selector switch: ON

- (1) Terminate the audio line output pin with a $47\text{k}\Omega$ resistor and connect a level meter.
- (2) Apply a 400Hz signal simultaneously to L-CH and R-CH audio line input and adjust so that R-CH level is -10 dB .
- (3) Confirm that E-E mode audio line output and output when self-recording is played back are the same.

5-6. TUNER SYSTEM ADJUSTMENT (TU-77, MP-7 board)

1. AFT Adjustment (TU-77 board)

- (1) Receive a TV broadcast signal.
- (2) Turn the AFT switch off.
- (3) Press the tuning button and set for the optimum state while observing the monitor TV screen.
(There should be no beat.)
- (4) Connect the digital voltmeter to pin ⑦ of IC101.
- (5) Adjust T103 so that the level is 4.6 V DC .
- (6) Turn the AFT switch on, receive each channel, and check to make sure that there is no beat or picture disturbance.

2. RF AGC Adjustment (TU-77 board)

- (1) Adjust the monitor TV for best contrast and receive a VHF TV broadcast signal.
- (2) Adjust RV101 so that snow noise is visible.
- (3) Turn RV101 in the opposite direction to that in (2) and set at the point where snow noise disappears.
- (4) Receive each channel and confirm that there is no beat, picture disturbance or snow noise.
- (5) Adjust the monitor TV for best contrast and receive a UHF TV broadcast signal.
- (6) Adjust RV104 so that snow noise is visible.
- (7) Turn RV104 in the opposite direction to that in (2) and set at the point where snow noise disappears.
- (8) Receive each channel and confirm that there is no beat, picture disturbance or snow noise.

3. Audio Carrier Lock SIF Adjustment (TU-77 board)

3-1. VCO voltage adjustment

- (1) Short IC102 pin ⑨ and pin ⑩ across the shortest distance.
- (2) Connect a digital voltmeter to IC102 pin ④.
- (3) Adjust the $2.7\text{ V} \pm 0.05\text{ V DC}$ with RV203.
- (4) Return IC102 pins ⑨ and ⑩ to normal.

3-2. T206 adjustment

- (1) Receive a TV broadcast signal.
- (2) Connect a digital voltmeter to IC102 pin ④.
- (3) Adjust the $2.7\text{ V} \pm 0.05\text{ V DC}$ with T206. Audio should be output normally at this time.

Note:

2.7 V voltage is generated at several points, not just one, so find the point that varies between $1\text{ V} - 4\text{ V}$.

3-3. SIF discriminator adjustment

- (1) Receive a TV broadcast signal.
- (2) Connect a digital voltmeter to IC101 pin ⑬.
- (3) Adjust to $3.9\text{ V} \pm 0.2\text{ V DC}$ with T101.

4. Multiplex Decoder Adjustment (MP-7 board)

Input a signal via C801 negative side lead (unsolder) to IC801 pin ①.

4-1. SAP-BPF adjustment

- (1) Input a 62.94 kHz 0.42 Vp-p sine wave to IC801 pin ①.
- (2) Adjust RV802 so that IC801 pin ⑥ output is minimum.
- (3) Set the frequency to 78.67 kHz and confirm that IC801 pin 37 output is less than 30 mVp-p .

4-2. Stereo VCO adjustment

- (1) Short the IC801 pin ① to ground with a chemical capacitor.
- (2) Connect a frequency counter to IC801 pin ③ and adjust RV805 so that the frequency is $62.94 \pm 0.1\text{ kHz}$.

4-3. SAP VCO adjustment

- (1) Select an illegal channel (channel 0, etc.) to make MUTE high and read IC801 pin ② DC voltage VM ($3.4 \pm 0.3\text{ V}$).
- (2) Input a 78.67 kHz 0.42 Vp-p to IC801 pin ① and adjust RV803 so that IC801 pin ② DC voltage is VM $\pm 0.1\text{ V}$.

4-4. Pilot cancel adjustment

- (1) Input a 15.75 kHz 0.14 Vp-p to IC801 pin ①.
- (2) Adjust RV804 so that IC801 pin 40 output 15.75 kHz output is minimum. (If it is turned too much, output will become zero and operation will be mono.)

4-5. Output level check

Input a 300 Hz 0.7 Vp-p to IC801 pin ①. Check CN106 pin ① output VL and ② output VR. VL = $400 \pm 40\text{ mVrms}$. VR = VL $\pm 25\text{ mVrms}$.

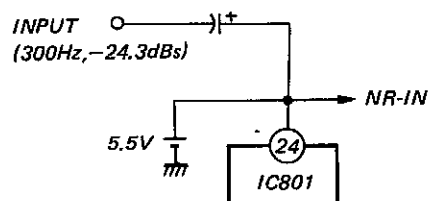
5. Noise Reduction Adjustment (MP-7 board)

5-1. Time constant adjustment

Adjust RV830 so that the voltage drop at both sides of R839 is $15 \pm 1\text{ mVp-p}$.

5-2. Variable de-emphasis adjustment

- (1) Set RV832 to mechanical center.
- (2) Apply 5.5 V bias to IC801 pin ②, cut DC with a capacitor and input $300\text{ Hz} -24.3\text{ dBs}$.



- (3) Adjust RV831 so that CN106 pin ① and ② output is VL/7 $\pm 5\text{ mV}$, and read IC830 pin ⑦ output Va.
- (4) In the same way, input $8\text{ kHz} -17.2\text{ dBs}$ and adjust RV831 so that IC830 pin ⑦ output is Va -11.3 dBs .